

Hardness Total SW 500

Range(s): 0-500 ppm CaCO_3



Procedure

Note: This test was developed to test total hardness in pool/spa waters with a salt level of 2000-8000 ppm NaCl that utilize chlorine generators to produce chlorine.

1. Turn on the Colorimeter.
2. Select a test menu (ALL TESTS, RECENT TESTS, or FAVORITES) containing Hardness Total SW 500 using \blacktriangleleft .
3. Select Hardness Total SW 500 using \blacktriangle ; then press ENTER \odot .

4. Rinse and fill 25 mm sample cell to 10 mL mark with sample; then cap.
5. Insert sample cell into sample cell compartment. Align marks per User's Manual.
6. Select ZERO using \blacktriangleleft ; then press ENTER \odot . Zero will be displayed.
7. Remove sample cell from sample cell compartment; then remove cap.
8. Add 1 mL Hardness Total 500 - Reagent A; then swirl to mix.

9. Add 1 mL Hardness Total 500 - Reagent B; then swirl to mix.
10. Add 1 mL Hardness Total 500 - Reagent C; then cap and swirl to mix thoroughly.
11. Insert sample cell into sample cell compartment. Align marks.
12. Select READ using \blacktriangleright then press ENTER \odot . The instrument will read the sample and the result will be displayed.

Interferences

Biguanide (as product) > 20 ppm – negative interference
 Chloride (NaCl) < 2000 ppm – negative interference
 > 8000 ppm – positive interference

The following analytes were tested to the levels listed and found not to cause any interferences up to the specified values:

Alkalinity, Total (CaCO_3) – 1000 ppm
 Bromine – 10 ppm
 Chlorine – 10 ppm
 Copper – 0.5 ppm

Cyanuric Acid – 200 ppm
 Iron, Ferric – 0.5 ppm
 Iron, Ferrous – 0.5 ppm
 Zinc – 0.5 ppm

Test Method

Calmagite

Under basic conditions, Calmagite reacts with hardness to form a red color proportional to the concentration of total hardness in a sample.

Estimated Detection Limit

15 ppm total hardness as CaCO_3

Precision

Using two lots of reagent and a standard solution of 300 ppm total hardness as CaCO_3 , an individual analyst obtained a standard deviation with the instrument of ± 9 ppm total hardness as CaCO_3 .

Application

Recreational Water

Ordering Info

Reagent Pack

K-8029 Hardness Total SW 500

Formulated for exclusive use with Taylor's TTi® Colorimeter.

Reagent Pack Components

R-8029A Hardness Total 500 - Reagent A

R-8029B Hardness Total 500 - Reagent B

R-8029C Hardness Total 500 - Reagent C

Instruction #5530

